

REMARKS

Claims 16 - 31 and 33 - 36 are currently pending in the present application.

In the Office Action, claims 16 - 19, 23, and 28 - 31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776. Also, in the Office Action, claims 20 - 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of St. Louis US Patent Application 2003/0097764. Furthermore, in the Office Action, claim 22 is rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Liebermann US Patent No. 3,060,591. Moreover, in the Office Action, claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Worst US Patent No. 3,309,783. Also, in the Office Action, claims 25 - 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776. Moreover, in the Office Action, claims 33 - 36 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Kohlman et al US Patent No. 6,381,870.

With respect to the prior art rejections of claims 16 - 31 and 33 - 36, favorable reconsideration is respectfully requested in view of the following comments.

The Present Invention

The present invention is directed to an inventive method for drying laundry in a dryer and an inventive laundry dryer. The inventive method, which may be performed in the inventive laundry dryer, advantageously performs an anti-

creasing cycle that minimizes the formation of undesirable creases in the laundry being dried. Attention is directed to claim 16 of the present application, which recites a method for drying laundry in a dryer comprising a housing and a drum receiving the laundry and mounted for rotation with respect to the housing. The inventive method includes, as recited in claim 16, performing a drying program including a heating-up phase, a drying phase, and a cooling-down phase and performing an anti-crease cycle. The anti-crease cycle has alternating intervals including rotary movement time intervals, in which the drum is rotated to agitate the laundry, and stoppage time intervals, in which the drum stops rotating and the laundry is at rest. Furthermore, the duration of the rotary movement intervals decreases in relation to the stoppage time intervals in response to an operating parameter.

The Rejection of Claims 16 - 19, 23, and 28 - 31 Under 35 U.S.C. §103(a) As Being Unpatentable Over Janke US Patent No. 3,702,030 in View of Hughes US Patent No. 2,961,776

Claims 16 - 19, 23, and 28 - 31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776.

The Office Action asserts that Janke '030 discloses performing an anti-crease cycle that has alternating intervals including rotary movement time intervals, in which the drum is rotated to agitate the laundry, and stoppage time intervals, in which the drum stops rotating and the laundry is at rest, with the duration of the rotary movement intervals decreases in relation to the stoppage time intervals in response to an operating parameter. According to the Office Action, Janke '030 does not disclose the feature that, after the drying phase has been performed, an anti-crease cycle is introduced. Nonetheless, according to the Office Action, Hughes '776 discloses an anti-crease cycle and it would have been obvious to one skilled in the art to combine the teachings of Janke '030 with

the anti-crease feature of Hughes '776 for the purpose of optimizing energy by minimizing the amount of energy used in laundry drying by use of an anti-crease feature.

It is respectfully submitted that: (a) none of the prior art, including Janke '030 and Hughes '776, would teach one skilled in the art to combine the teachings of Janke '030 with the anti-crease feature of Hughes '776 for the purpose of optimizing energy by minimizing the amount of energy used in laundry drying by use of an anti-crease feature and (b) even if one skilled in the art were to combine the teachings of Janke '030 and Hughes '776, the resulting method would still not include all of the features of the method of the present invention, since neither Janke '030 nor Hughes '776 teach or disclose an anti-crease feature that is introduced after the drying phase has been performed.

Janke US Patent No. 3,702,030 discloses a clothes dryer 10 including a drum 11 having a bulkhead 12 in which there is an inlet aperture 13 and a drive motor 17 to drive a fan and connected in a driving relationship with the drum 11. The clothes dryer 10 also includes a digital control circuit 23, a digital counter circuit 26, a memory 28 and a control logic circuit 27. The control logic circuit 27 includes a plurality of outputs for controlling various machine functions and, accordingly, for controlling the program of the dryer. Janke '030 discloses a method of controlling a fabric treating apparatus comprising the steps of (a) initiating a fabric treating operation; (b) sensing a parameter related to the condition of the fabric within the treatment zone; (c) counting pulses from a source of timing signals; (d) repeatedly terminating and restarting the count until said sensed parameter reaches a predetermined value; and (e) terminating the fabric treating operation upon the accumulation of a preselected count.

Hughes '776 discloses a clothes drying machine having an arrangement shown in Figure 5 by which an operator can manually control a motor reversing switch 60 to manually reverse the direction of a blower 36 between a direction A, in which a higher flow of air is passed over clothes in the dryer and a direction B in which a lower flow of air is passed over the clothes.

As noted, the method for drying laundry recited in claim 16 of the present application includes performing a drying program including a heating-up phase, a drying phase, and a cooling-down phase and then performing an anti-crease cycle after the drying program has been performed. The Office Action accurately notes that Janke '030 does not disclose the feature that, after the drying phase has been performed, an anti-crease cycle is introduced. However, the Office Action erroneously asserts that Hughes '776 discloses just such a feature by virtue of the fact that Hughes '776 discloses a "de-wrinkle" cycle feature - namely, the disclosure in Column 5, line 63, to Column 6, line 3 of Hughes '776 of a "de-wrinkle" cycle. While it is true that Hughes '776 discloses a "de-wrinkle" cycle, an examination of Hughes '776 reveals that Hughes '776 specifically discloses that such a "de-wrinkle" cycle is one version of the drying phase itself and Hughes '776 does not in any manner hint or suggest, let alone disclose, that its "de-wrinkle" cycle is, in the language of claim 16 of the present application, an anti-crease cycle that is performed after the drying phase has been performed - i.e., a wholly separate cycle separate and apart from the drying phase during which heating-up, drying, and cooling down of clothes has already been performed.

Hughes '776 discloses that the manual control feature of its motor reversing switch 60 permits an operator to provide a greater or lesser heating effect and points out as an example of this that the operator can manually control the motor reversing switch 60 to provide a "low" air flow in the event that the particular clothes to be dried (e.g., wash and wear fabrics) need to be "de-wrinkled" and, therefore, should be subjected to a temperature at a higher level. The manual control of the motor reversing switch 60 is disclosed in Hughes '776 as a feature of an alternative control circuit arrangement (the second control circuit arrangement of Figure 5) that can be selected instead of an automatic timer control feature in which the motor reversing switch 60 is controlled to automatically reverse the direction of rotation of the blower 36 (the first control circuit arrangement of Figure 4). Accordingly, it is absolutely clear that the

disclosure in Column 5, line 63, to Column 6, line 3 of Hughes '776 of a "de-wrinkle" cycle is directed to an alternative control circuit arrangement (the second control circuit arrangement of Figure 5) for performing the drying cycle that would otherwise be performed under the control of the first control circuit arrangement of Figure 4. Hughes '776 in no manner or fashion suggests that an anti-crease cycle is provided above and beyond, or in addition to, the drying cycle that is performed either via the first control circuit arrangement of Figure 4 or via the second control circuit arrangement of Figure 5.

Moreover, even if the combination of Janke '030 and Hughes '776 resulted in a method that includes all of the steps of the method for drying laundry recited in claim 16 of the present application, which Applicants submit is not the case, it is not at all certain that one of skill in the art would be motivated to combine Janke '030 and Hughes '776 by "the purpose of optimizing energy by minimizing the amount of energy used in laundry drying by use of an anti-crease feature" as asserted in the Office Action. In view of the fact that the method for drying laundry recited in claim 16 of the present application recites that an anti-crease cycle is performed in addition to a drying cycle, it is not accurate to assert that such a method for drying laundry minimizes the amount of energy, as such a method entails additional energy loads (for example, energy for drum tumbling, energy for air flow, energy for heating) beyond the energy for a drying cycle. Thus, one skilled in the art seeking to minimize the amount of energy used in laundry drying would not, in contrast to the assertion in the Office Action, be motivated to add an additional energy loading step such as the anti-crease cycle of the method for drying laundry recited in claim 16 of the present application. Accordingly, one skilled in the art seeking to provide an improvement in a method for drying laundry such as recited in claim 16 of the present application would not be motivated to combine Janke '030 and Hughes '776 as asserted by the Office Action.

In view of the absence in either Janke '030 or Hughes '776 of any teaching or disclosure of a method for drying laundry as recited in claim 16 of the present

application in which an anti-crease cycle is performed after a drying cycle, it cannot be asserted that either Janke '030 or Hughes '776 alone or in combination renders obvious the present invention under 35 U.S.C. §103(a) and the rejection of claim 16, and the rejections of claims 17 - 19, 23 all ultimately depending upon claim 16, should be withdrawn. For the same reasons, the rejection of independent apparatus claim 28, and claims 29 - 31 all ultimately depending therefrom, under 35 U.S.C. §103(a) as being obvious over Janke '030 in view of Hughes '776 should be withdrawn.

The Rejection of Claims 20 - 21 Under 35 U.S.C. §103(a) as Unpatentable Over Janke US Patent No. 3,702,030 in View of Hughes US Patent No. 2,961,776 In View of St. Louis US Patent Application 2003/0097764

Claims 20 - 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of St. Louis US Patent Application 2003/0097764. Claims 21 - 23, all ultimately depending upon claim 16, and each recites further features of the method for drying laundry recited in claim 16 of the present application.

Janke US Patent No. 3,702,030 discloses a clothes dryer 10 and a method of controlling a fabric treating apparatus.

Hughes '776 discloses a clothes drying machine having an arrangement shown in Figure 5 by which an operator can manually control a motor reversing switch 60 to manually reverse the direction of a blower 36 between a direction A, in which a higher flow of air is passed over clothes in the dryer and a direction B in which a lower flow of air is passed over the clothes.

St. Louis US Patent Application 2003/0097764 discloses a clothes dryer 10 (Paragraph 0018) having a control circuit (Abstract).

With regard to St. Louis US Patent Application 2003/0097764, the Office Action asserts that this reference discloses a pre-selected drying program

selected by the user. While St. Louis US Patent Application 2003/0097764 may disclose such a pre-selected drying program selected by the user, it is not seen, and the Office Action has not alleged, that St. Louis US Patent Application 2003/0097764 teaches or discloses a method for drying laundry as recited in claim 16 of the present application in which an anti-crease cycle is performed after a drying cycle. It is respectfully submitted that the rejection of claims 20 - 21 under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of St. Louis US Patent Application 2003/0097764 cannot be sustained in view of the failure of Janke US Patent No. 3,702,030 or Hughes '776 to teach or disclose the method for drying laundry recited in claim 16 of the present application and the failure of St. Louis US Patent Application 2003/0097764 to remedy the deficiencies of Janke '030 or Hughes '776.

The Rejection of Claim 22 Under 35 U.S.C. §103(a) as Unpatentable Over Janke US Patent No. 3,702,030 in View of Hughes US Patent No. 2,961,776 in View of Liebermann US Patent No. 3,060,591

Claim 22 is rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Liebermann US Patent No. 3,060,591. Claim 22 depends from claim 16 and recites further features of the method for drying laundry recited in claim 16 of the present application.

With regard to Liebermann US Patent No. 3,060,591, the Office Action asserts that this reference discloses an arrangement for detecting an amount of laundry. While Liebermann US Patent No. 3,060,591 may disclose such an arrangement for detecting an amount of laundry, it is not seen, and the Office Action has not alleged, that Liebermann US Patent No. 3,060,591 teaches or discloses a method for drying laundry as recited in claim 16 of the present application in which an anti-crease cycle is performed after a drying cycle. It is respectfully submitted that the rejection of claim 22 under 35 U.S.C. §103(a) as

being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Liebermann US Patent No. 3,060,591 cannot be sustained in view of the failure of Janke US Patent No. 3,702,030 or Hughes '776 to teach or disclose the method for drying laundry recited in claim 16 of the present application and the failure of Liebermann US Patent No. 3,060,591 to remedy the deficiencies of Janke '030 or Hughes '776.

The Rejection of Claim 24 Under 35 U.S.C. §103(a) as Unpatentable Over Janke US Patent No. 3,702,030 in View of Hughes US Patent No. 2,961,776 in View of Worst US Patent No. 3,309,783

Claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Worst US Patent No. 3,309,783. Claim 24 depends from claim 16 and recites further features of the method for drying laundry recited in claim 16 of the present application.

Worst US Patent No. 3,309,783 discloses a clothes dryer 1 (Column 2, lines 17 - 26 and Figures 1 - 4) having a drum reversal feature (Column 1, lines 45 - 60).

With regard to Worst US Patent No. 3,309,783, this reference is alleged to disclose a drum reversing feature for a clothes dryer. While that may be so, it is not seen, and the Office Action has not alleged, that Worst US Patent No. 3,309,783 teaches or discloses a method for drying laundry as recited in claim 16 of the present application in which an anti-crease cycle is performed after a drying cycle. It is respectfully submitted that the rejection of claim 24 under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Worst US Patent No. 3,309,783 cannot be sustained in view of the failure of Janke US Patent No. 3,702,030 or Hughes '776 to teach or disclose the method for drying laundry

recited in claim 16 of the present application and the failure of Worst US Patent No. 3,309,783 to remedy the deficiencies of Janke '030 or Hughes '776.

**The Rejection of Claims 25 - 27 Under 35 U.S.C. §103(a) as
Unpatentable Over Janke US Patent No. 3,702,030 in View of Hughes
US Patent No. 2,961,776**

Claims 25 - 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776. Claims 25 - 27, all ultimately depending upon claim 16, each recite further features of the method for drying laundry recited in claim 16 of the present application.

In view of the absence in Janke '030 or Hughes '776 of any mention of a method for drying laundry as recited in claim 16 of the present application in which an anti-crease cycle is performed after a drying cycle, it cannot be asserted that Janke '030 in view of Hughes '776 renders obvious the subject matter of claims 25 - 27 of the present application under 35 U.S.C. §103(a).

**The Rejection of Claims 33 - 36 Under 35 U.S.C. §103(a) as
Unpatentable Over Janke US Patent No. 3,702,030 in View of Hughes
US Patent No. 2,961,776 in View of Kohlman et al US Patent No.
6,381,870**

Claims 33 - 36 are rejected under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Kohlman et al US Patent No. 6,381,870. Claims 33 - 35, all ultimately depending upon claim 28, each recite further features of the laundry drier recited in claim 28 of the present application and claim 36 depends from claim 16 and recites further features of the method for drying laundry recited in claim 16 of the present application.

Kohlman et al US Patent No. 6,381,870 discloses a drying cycle phenomenon wherein a bag having laundry therein undergoes "crimping" or "creasing."

While Kohlman et al US Patent No. 6,381,870 may disclose an anti-crease feature, it is not seen, and the Office Action has not alleged, that Kohlman et al US Patent No. 6,381, teaches or discloses a method for drying laundry as recited in claim 16 of the present application in which an anti-crease cycle is performed after a drying cycle. It is respectfully submitted that the rejection of claims 33 - 36 under 35 U.S.C. §103(a) as being unpatentable over Janke US Patent No. 3,702,030 in view of Hughes US Patent No. 2,961,776 in view of Kohlman et al US Patent No. 6,381,870 cannot be sustained in view of the failure of Janke US Patent No. 3,702,030 or Hughes '776 to teach or disclose the present invention and the failure of Kohlman et al US Patent No. 6,381,870 to remedy the deficiencies of Janke '030 or Hughes '776.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of claims 16 - 31 and 33 - 36 are respectfully requested. If the Examiner has any questions regarding this Amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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